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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/810,049

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Graziano Marusi

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7590

11/27/2006

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SBP/CEC/JEL

EXAMINER

NGUYEN, THONG Q

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/810,049

Applicant(s)

MARUSI ET AL.

Examiner

Thong Q. Nguyen

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/29/2006 has been entered.

### ***Response to Amendment***

2. The present Office action is made in response to the amendment filed on 8/4/2006. It is noted that in the amendment, applicant has amended the specification and the claims. Regarding to the claims, applicant has amended claims 1, 3, 19 and 24 and canceled claim 2. The remaining claims 1 and 3-26 are examined in this Office action.

### ***Specification***

3. The lengthy specification which was amended by the amendment of 8/4/06 has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

4. The objection to the specification as failing to provide proper antecedent basis for the claimed subject matter set forth in the previous Office action is overcome by the amendment to the specification provided in the amendment of 8/4/06.

***Claim Objections***

5. The objections to claims 1-3 as set forth in the previous Office action are overcome by the amendments to claims 1 and 3 and the cancellation of claim 2 provided in the amendment of 8/4/06.

***Double Patenting***

6. The objection to claim 2 under 37 CFR 1.75 as being a substantial duplicate of claim 1 is overcome by the cancellation of the claim 2 provided in the amendment of 8/4/06.

***Claim Rejections - 35 USC § 102***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1, 3-4, 6, 10 and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Melzig et al (U.S. Patent No. 4,852,974, of record).

Melzig et al disclose an antireflection multilayered film for use with an optical lens having photochromic properties. The film as described in column 3 and shown in figures 1 and 5 comprises seven dielectric layers of alternative low and high refractive indices which in combination has a reflectance level of 10% or less for light of wavelengths from 325 to 400 nm. In particular, the multilayered film provided by Melzig et al has a reflectivity of less than 5% for the bandwidth around the wavelength of 350 nm, and has a reflectivity of larger than 30% in the bandwidth around the wavelength of 290 nm. The material of the layers having low refractive index is SiO<sub>2</sub> and the materials of the layers having high refractive

index is  $\text{Ti}_2\text{O}_3$  as can be seen in column 3, Table 2. Regarding to the number of layers in the film, it is noted that the number of layers in the embodiment 1 described in column 2, Table 1 is five layers and the number of layers in the embodiment 2, Table 2 is seven layers which meets the features recited in present claim 10. Applicant should note that it was decided in the Courts that "the disclosure in the prior art of any value within a claimed range is an anticipation of that range." See *In re Wertheim*, 541 F. 2d 257, 191 USPQ 90 (CCPA 1976); *Titanium Metals Corporation of America*, 227 USPQ 773 (Fed. Cir. 1985); *In re Petering*, 301 F. 2d 676, 133 USPQ 275 (CCPA 1962).

As a result of such a structure, the optical device as provided by Melzig et al has met the feature thereof "a plurality of dielectric layers for deposition onto a photochromic lens, said dielectric layers selected and arranged so as to reflect an amount less than 15% of spectral ultraviolet radiation in a range between 315 and 400 nm" recited in present claim 1. Regarding to the feature thereof "said dielectric layers selected and arrange to reflect at least some light in the visible spectrum so as to exhibit colored appearance when observer from a side opposite from the photochromic lens" recited in claim 1, lines 4-7), such a feature is considered as an inherent feature from the lens structure provided by Melzig et al when the optical device with such lens structure is subjected to an application of a visible spectrum. The support for that conclusion is as follow: First, the optical device provided by Melzig et al comprises a plurality of alternately low and high refractive index layers wherein the low refractive index layer is  $\text{SiO}_2$  and the

layer of high refractive index is  $\text{Ti}_2\text{O}_3$  which materials are used to constitute the layers of the device claimed; Second, the present claims do not recite any specific limitations related to the structure of the dielectric layers claimed except a reference to the alternative low and high layers (see present claim 60 and the material of the layers (see claim 4) which both features are clearly met by the optical device having lens structure provided by Melzig et al.

***Claim Rejections - 35 USC § 103***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 5, 7, 19-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melzig et al in view of Andreani et al (both of record)

Melzig et al disclose an antireflection multilayered film for use with an optical lens having photochromic properties. The film as described in column 3 and shown in figures 1 and 5 comprises seven dielectric layers of alternative low and high refractive indices which in combination has a reflectance level of 10% or less for light of wavelengths from 325 to 400 nm. In particular, the multilayered film provided by Melzig et al has a reflectivity of less than 5% for the bandwidth around the wavelength of 350 nm, and has a reflectivity of larger than 30% in the bandwidth around the wavelength of 290 nm. The material of the layers having low refractive index is  $\text{SiO}_2$  and the materials of the layers having high refractive index is  $\text{Ti}_2\text{O}_3$  as can be seen in column 3, Table 2. Regarding to the number of layers in the film, it is noted that the number of layers in the embodiment 1

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described in column 2, Table 1 is five layers and the number of layers in the embodiment 2, Table 2 is seven layers which meets the features recited in present claim 10. Applicant should note that it was decided in the Courts that "the disclosure in the prior art of any value within a claimed range is an anticipation of that range." See *In re Wertheim*, 541 F. 2d 257, 191 USPQ 90 (CCPA 1976); *Titanium Metals Corporation of America*, 227 USPQ 773 (Fed. Cir. 1985); *In re Petering*, 301 F. 2d 676, 133 USPQ 275 (CCPA 1962).

As a result of such a structure, the optical device as provided by Melzig et al has met the feature related to a plurality of dielectric layers selected and arranged so as to reflect an amount less than 15% of spectral ultraviolet radiation in a range between 315 and 400 nm recited in present claims 19 and 22. Regarding to the feature that the layers selected and arrange to reflect at least some light in the visible spectrum so as to exhibit a visible colored appearance as recited in claims 19 and 22, such a feature is considered as an inherent feature from the lens structure provided by Melzig et al when the optical device with such lens structure is subjected to an application of a visible spectrum. The support for that conclusion is as follow: First, the optical device provided by Melzig et al comprises a plurality of alternately low and high refractive index layers wherein the low refractive index layer is  $\text{SiO}_2$  and the layer of high refractive index is  $\text{Ti}_2\text{O}_3$  which materials are used to constitute the layers of the device claimed; Second, the present claims do not recite any specific limitations related to the structure of the dielectric layers claimed except a reference to the alternative low

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and high layers (see present claim 60 and the material of the layers (see claim 4) which both features are clearly met by the optical device having lens structure provided by Melzig et al.

The antireflection multilayered film for use with an optical lens which has a reflectance level of less than 5% for the bandwidth around the wavelength of 350 nm as provided by Melzig et al does not disclose that the material having high refractive index is  $\text{TiO}_2$  as claimed in present claims 5, 19 and 24 or  $\text{ZrO}_2$  as claimed in present claim 7. However, the use of material of  $\text{TiO}_2$  and  $\text{ZrO}_2$  for a layer of a high refractive index in a multilayered film in the range of 300-400 nm is known to one skilled in the art as can be seen in the antireflection multilayered film provided by Andreani et al. In particular, in the antireflection multilayered film described in column 5, Andreani et al disclose that the material used in the layer of high refractive index is selected from a group of  $\text{TiO}_2$ ,  $\text{Ti}_2\text{O}_3$ ,  $\text{Ta}_2\text{O}_5$ ,  $\text{ZrO}_2$ , etc...and the material used in the layer of low refractive index is selected from a group of  $\text{SiO}_2$ ,  $\text{MgF}_2$ , ... Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the antireflection multilayered provided by Melzig et al by using material of  $\text{TiO}_2$  or  $\text{ZrO}_2$  for the layer of high refractive index as suggested by Andreani et al for the purpose of satisfying a particular application. Applicant should also note that it was decided in the Courts that a selection of known material based on its suitability for the intended use is a matter of obvious design choice. See *In re Leshin*, 125 USPQ 416.



Regarding to the method as recited in claim 24, while the combined product does not clearly set forth the step of creating a colored photochromic lens; however, it would have been obvious to one skilled in the art at the time the invention was made to make the combined product as provided by Melzig et al and Andreani et al by alternatively applying a plural layers made by high refractive material of  $\text{TiO}_2$  or  $\text{ZrO}_2$ , and low refractive material of  $\text{SiO}_2$  on a photochromic lens for the purpose of obtaining a photochromic lens wherein the layers do not adversely affect the original photochromic activity of the lens.

11. Claims 8-9, 18, 23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melzig et al.

The antireflection multilayered film for use with an optical lens which has a reflectance level of less than 5% for the bandwidth around the wavelength of 350 nm as provided by Melzig et al does not disclose that the number of layers in the film is four or twelve as claimed in present claims 8-9, 18, 23 and 25-26.

However, the number of layers of the film as claimed is merely that of preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification in which applicant has declared that the number of layers is not critical/important as can be seen in the present specification in page 10, section [0030]. It is also noted that such a non-criticality of the number of layers is indeed claimed in the present claims. For instance, the number of layers can be four as claimed in present claim 10. Thus, absent of any criticality, it would have been obvious to one skilled in the art at the time the

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invention was made to modify the antireflection multilayered film provided by Melzig et al by using any combination of numbers of layers as desired for the purpose of adjusting the ability of antireflection light of the film.

12. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melzig et al in view of Andreani et al.

The antireflection multilayered film for use with an optical lens as provided by Melzig et al and Andreani et al does not explicitly state that the multilayered film has an activation value greater than 25% or equal to the activation value of a photochromic lens as claimed in present claims 11-15. However, such features are considered as an inherent feature from the use of a multilayered film provided by Melzig et al and Andreani et al. The support for that conclusion is found in the structure of the multilayered film provided by Melzig et al and Andreani et al comprises a number of alternative low and high refractive indices with the materials of SiO<sub>2</sub> and TiO<sub>2</sub> which is identical to the structure of the film as recited in the present claims. Since a similarity and/or identity in structure will yield the same function and/or result, one skilled in the art will expect that the activation value of the film provided by Melzig et al and Andreani et al is greater than 25% of the activation value of the photochromic lens. If it is not inherent then one skilled in the art will recognize that the change in the activation value of the film with respect to that of a photochromic lens is able to obtain by just adjusting the number of layers and/or the thickness of the layers used to constitute the film. Thus, it would have been obvious to one skilled in the art at

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the time the invention was made to modify the antireflection multilayered film provided by Melzig et al and Andreani et al by adjusting the number of layers and/or the thickness of the layers used to constitute the antireflection multilayered film for the purpose of adjusting the activation value of the film with respect to that of the lens which lens is coated by such film.

***Response to Arguments***

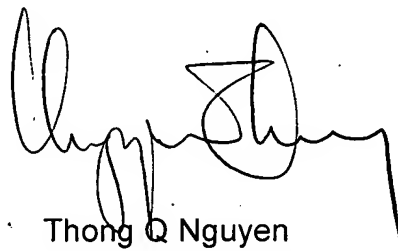
13. Applicant's arguments with respect to claims 1-26, now applied to claims 1 and 2-26 as provided in the amendment of 8/4/06, pages 9-11, have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Thong Q. Nguyen', is positioned above the printed name.

Thong Q. Nguyen  
Primary Examiner  
Art Unit 2872

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